

controlling an irradiation energy of said laser light based on a refractive index of said semiconductor film on which said laser light has been irradiated so that the refractive index of said semiconductor film is within a predetermined range.

5. (Amended) An optical processing method comprising the steps of:
preparing a semiconductor film formed over a substrate;
irradiating a laser light onto said semiconductor film to crystallize said semiconductor film; and

A3 controlling an irradiation energy of said laser light based on a refractive index of said semiconductor film on which said laser light has been irradiated,
wherein said laser light is repeatedly irradiated onto said semiconductor film until the refractive index of said semiconductor film becomes within a predetermined range.

9. (Amended) An optical processing method comprising the steps of:
preparing a semiconductor film formed over a substrate;
irradiating a first laser light onto said semiconductor film to crystallize said semiconductor film; and

A4 irradiating a second laser light onto said semiconductor film to further crystallize said semiconductor film,
wherein an irradiation energy of said second laser light is controlled so that a refractive index is within a predetermined range.

13. (Amended) An optical processing method comprising the steps of:
preparing a semiconductor film formed over a substrate;
irradiating a first laser light onto said semiconductor film to crystallize said semiconductor film;

A5 measuring a first refractive index of said semiconductor film on which said first laser light has been irradiated; and

irradiating a second laser light onto said semiconductor film to further crystallize said semiconductor film,

measuring a second refractive index of said semiconductor film on which
said second laser light has been irradiated,
wherein an irradiation energy of said second laser light is controlled based
on said first refractive index.

17. (Amended) An optical processing method comprising the steps of:
preparing a first semiconductor film over a first substrate;
irradiating a first laser light onto said first semiconductor film to crystallize
said first semiconductor film;
measuring a refractive index of said first semiconductor film;
preparing a second semiconductor film formed over a second substrate;
and
irradiating a second laser light onto said second semiconductor film to
crystallize said second semiconductor film,
wherein an irradiation energy of said second laser light is controlled based
on the refractive index of said first semiconductor film so that the refractive index of said
second semiconductor film is within a predetermined range.
